

# ANESTHESIA

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# Definition

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The term anesthesia, derived from the Greek term **anaesthesia**, meaning "insensibility," is used to describe the loss of sensation to the entire or any part of the body. Anesthesia is induced by drugs that depress the activity of nervous tissue locally, regionally, or within the central nervous system (CNS).

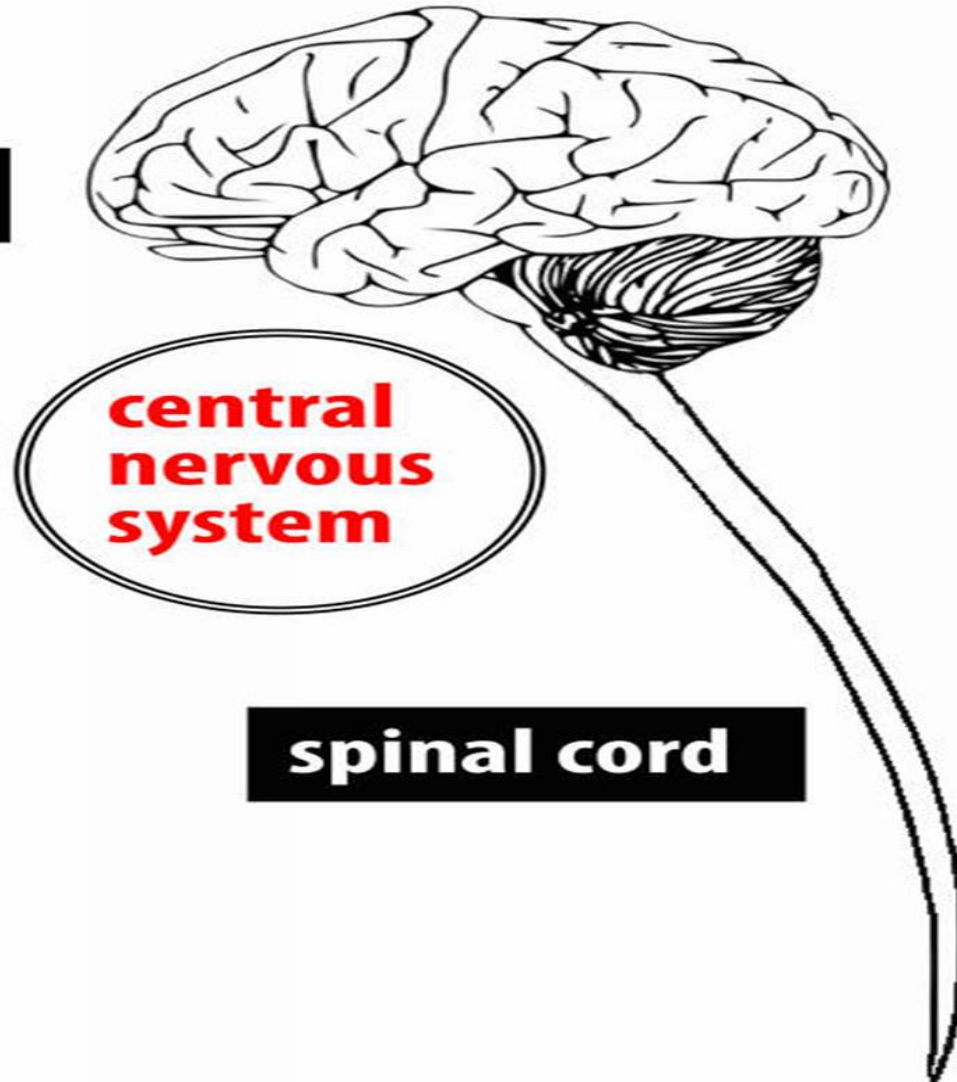
# General Anesthesia

It is a complete unconsciousness produced by a process of controlled, reversible intoxication of C.N.S.

## **Nervous system divided in to two parts:**

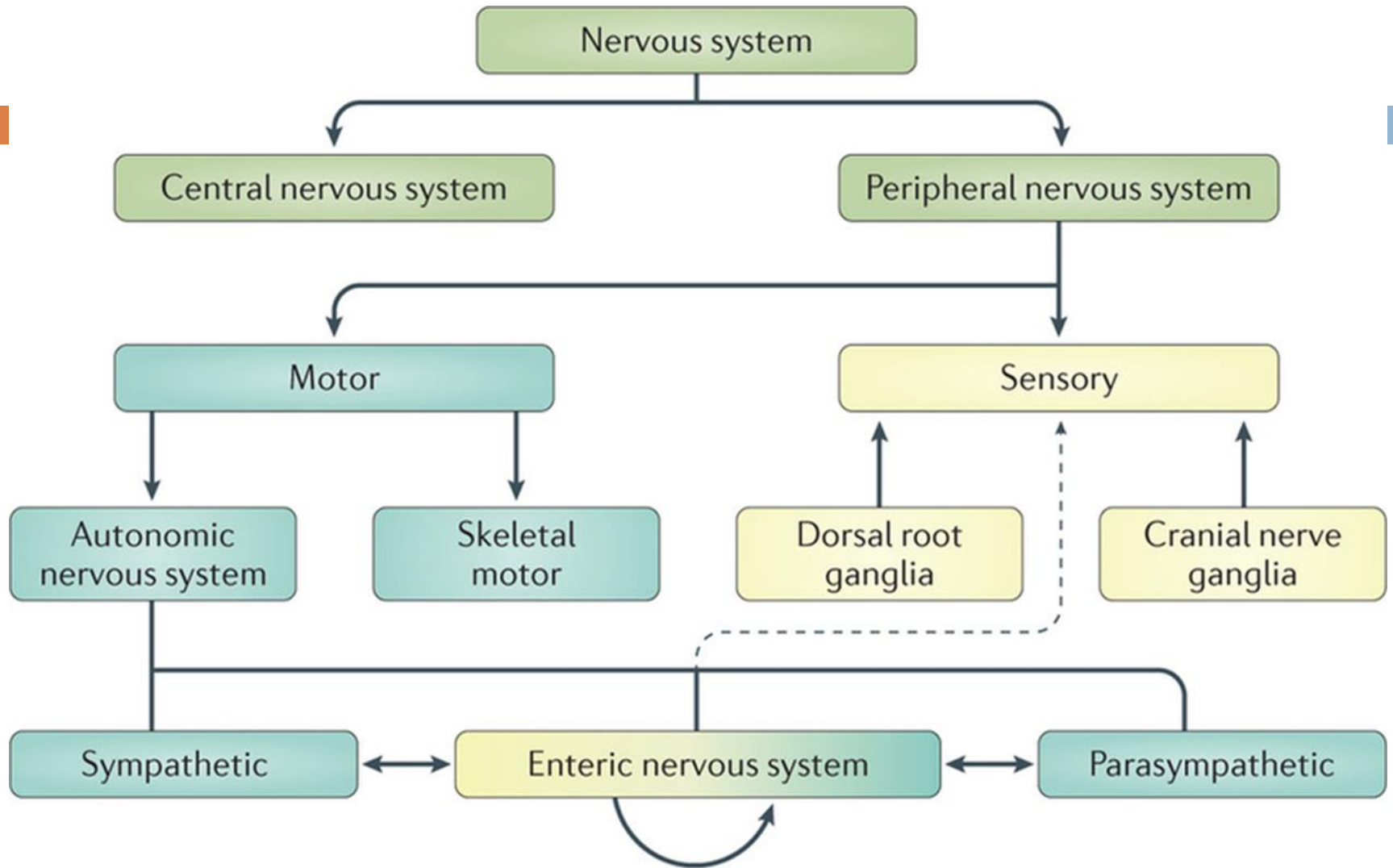
- Central nervous system(CNS) :including brain and spinal cord.
- Peripheral nervous system(PNS): all peripheral nerves.

**brain**



**central  
nervous  
system**

**spinal cord**



# Signs of Anesthesia


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- Respiration.
- Circulation(blood pressure).
- Ocular Signs(movement and dilation).
- Pharyngeal and Upper-Airway Reflexes.

# Anticholinergic And Sedatives

Anticholinergics are used preoperatively to manage bradycardia. Occasionally, they are also used to control excessive oral and airway secretions. Anticholinergics are often combined with sedatives and opioids as part of a preanesthetic combination. Sedatives are used preoperatively to induce sedation, provide restraint, and reduce the amount of injectable and inhalational anesthetics required to induce and maintain anesthesia.





Some sedatives suppress or prevent vomiting (phenothiazines and butyrophenones), others provide muscle relaxation (benzodiazepines), and still others provide analgesia and muscle relaxation. Sedatives can also be used to promote a smooth recovery from anesthesia, and some sedatives (opioids, and benzodiazepines) have specific antagonists that can be administered after short diagnostic and minor surgical procedures.



**Atropine** and **Glycopyrrolate** are the anticholinergics used most commonly in veterinary medicine.

**Acepromazine** and **Xylazine** are the most widely used sedatives in veterinary medicine.

# Selection of an Anesthetic

The ideal anesthetic is one that

1. Does not depend on metabolism for its termination of action and elimination
2. Enables rapid induction, quick alteration in anesthesia depth, and rapid recovery
3. Does not depress cardiopulmonary function
4. Does not irritate any tissue
5. Is inexpensive, stable, noninflammable, and nonexplosive
6. Requires no special equipment for administration